CONVERTIBLE TYPE AIR CONDITIONER

Operation & Installation Manual

AC142ACERA

AC182ACERA

AC242ACERA

AC142ACEEA

AC182ACEEA

AC242ACEEA

No. 0010576952
B

- Please read this operation manual before using the air conditioner.
- Please keep this manual carefully and safely.

■ Contents

■ Cautions

Disposal of the old air conditioner

Before disposing an old air conditioner that goes out of use, please make sure it's inoperative and safe. Unplug the air conditioner in order to avoid the risk of child entrapment.

It must be noticed that air conditioner system contains refrigerants, which require specialized waste disposal. The valuable materials contained in a air conditioner can be recycled. Contact your local waste disposal center for proper disposal of an old air conditioner and contact your local authority or your dealer if you have any question. Please ensure that the pipework of your air conditioner does not get damaged prior to being picked up by the relevant waste disposal center, and contribute to environmental awareness by insisting on an appropriate, anti-pollution method of disposal.

Disposal of the packaging of your new air conditioner

All the packaging materials employed in the package of your new air conditioner may be disposed without any danger to the environment.

The cardboard box may be broken or cut into smaller pieces and given to a waste paper disposal service. The wrapping bag made of polyethylene and the polyethylene foam pads contain no fluorochloric hydrocarbon.

All these valuable materials may be taken to a waste collecting center and used again after adequate recycling.

Consult your local authorities for the name and address of the waste materials collecting centers and waste paper disposal services nearest to your house.

Safety Instructions and Warnings

Before starting the air conditioner, read the information given in the User's Guide carefully. The User's Guide contains very important observations relating to the assembly, operation and maintenance of the air conditioner.

The manufacturer does not accept responsibility for any damages that may arise due to non-observation of the following instruction.

- Damaged air conditioners are not to be put into operation. In case of doubt, consult your supplier.

- Use of the air conditioner is to be carried out in strict compliance with the relative instructions set forth in the User's Guide.

- Installation shall be done by professional people, don't install unit by yourself.

- For the purpose of safety, the air conditioner must be properly grounded in accordance with specifications.

- Always remember to unplug the air conditioner before opening inlet grill. Always grip plug firmly and pull straight out from the outlet.

Cautions

- All electrical repairs must be carried out by qualified electricians. Inadequate repairs may result in a major source of danger for the user of the air conditoiner.

- Do not damage any parts of the air conditioner that carry refrigerant by piercing or perforating the air conditioner's tubes with sharp or pointed items, crushing or twisting any tubes, or scraping the coatings off the surfaces. If the refrigerant spurts out and gets into eyes, it may result in serious eye injuries.

- Do not obstruct or cover the ventilation grille of the air conditioner. Do not put fingers or any other things into the inlet/outlet and swing louver.

- Do not allow children to play with the air conditioner. In no case should children be allowed to sit on the outdoor unit.

Specifications

- The refrigerating circuit is leak-proof.
- For this model, the all-pole discon-rexion connection method should be applied in the power supply.
- Such means for disconnection must be incorporation in the fixed wiring.

Temperature and Humidity Range

*.EAA :

			Rated	Maximum	Minimum
Cooling	Indoor	DB ℃	27	32	18
		WB ℃	19	23	14
	outdoor	DB ℃	35	43	10
		WB ℃	24	26	--
Heating	Indoor	DB ℃	20	27	15
		WB ℃	14.5	--	--
	outdoor	DB ℃	7	24	-7
		WB ℃	6	18	--

*.ERA :

			Rated	Maximum	Minimum
Cooling	Indoor	DB ℃	27	32	18
		WB ℃	19	23	14
	outdoor	DB ℃	35	43	-5
		WB ℃	24	26	--
Heating	Indoor	DB ℃	20	27	15
		WB ℃	14.5	--	--
	outdoor	DB ℃	7	24	-15
		WB ℃	6	18	--

- If the air conditioner is used under higher temperature condition than those listed, the built-in protection circuit may operate to prevent internal circuit damage. Also, during Cooling and Dry modes, if the unit is used under conditions of lower temperature than those listed above, the heat-exchanger may freeze, leading to water leakage and other damage.
- Do not use this unit for any other purposes except for the Cooling and the Heating, Dehumidifying, and air-circulation of rooms should be in ordinary dwellings.
- The wiring method should be in line with the local wiring standand.
- The waste battery should be disposed properly.
- If the fuse on PC board is broken, please change it with the type T 3.15A/250VAC. The air breaker should be all-pole switch. and the distance between it's two contacts should no less than 3mm.

■ Safety Precautions

⚠ WARNING!

- If the power supply cord of this air conditioner is damaged, it must be replaced by the manufacturer or its authorized service personnel only.
- Use copper wire only. All the cables shall have got the Local authentication certificate. the power supply connects from the outdoor side.
- The power cable and connecting cable are self-provided.
- The parameter of connecting cable:H05RN-F 4G 0.75mm^2.
- The requirement of the corss section area of the power supply cord: H05RN-F 3G 2.5mm^2.
- If the fuse on PC board is broken please change it with the type of T3.15A/250VAC.

⚠ DANGER!

- Do not attempt to install this air conditioner by yourself.
- This unit contains no user-serviceable parts. Always consult authorized service personnel for repairs.
- When moving, consult authorized service personnel for disconnection and installation of the unit.
- Do not become excessively chilled by staying for lengthy periods in the direct cooling airflow.
- Do not insert fingers or objects into the outlet port or intake grills.
- Do not start and stop air conditioner operation by connecting and disconnecting the power supply cord and so on.
- Take care not to damage the power supply cord.
- In the event of a malfunction (burning smell, etc.), stop operation immediately, turn off the circuit breaker, and consult authorized service personnel.

⚠ CAUTION!

- Provide occasional ventilation during use.
- Do not direct air flow at fireplaces or heating apparatuses.
- Do not climb on place objects on the air conditioner.
- Do not hang objects from the indoor unit.
- Do not set flower vases or water containers on top of the air conditioner.
- Do not expose the air conditioner directly to water.
- Do not operate the air conditioner with wet hands.
- Do not pull power supply cord.
- Turn off power source when not using the unit for extended periods.
- Check the condition of the installation stand for damage.
- Do not place animals or plants in the direct path of the air flow.
- Do not drink the water drained from the air conditioner.
- Do not use in applications involving the storage of foods, plants or animals, precision equipment, or art works.
- Do not apply any heavy pressure to radiator fins.
- Operate only with air filters installed.
- Do not block or cover the intake grill and outlet port.
- Ensure that any electronic equipment is at least one metre away from either the indoor or outdoor unit.
- Avoid installing the air conditioner near a fireplace or other heating apparatuses.
- When installing the indoor and outdoor unit, take precautions to prevent access to infants.
- Do not use inflammable gases near the air conditioner.

■ Name of Parts

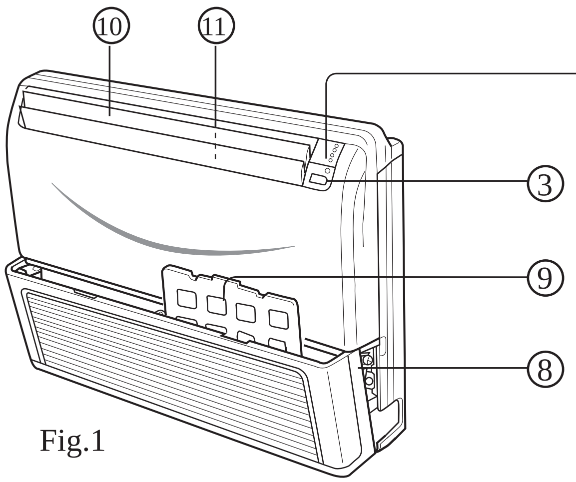


Fig.1

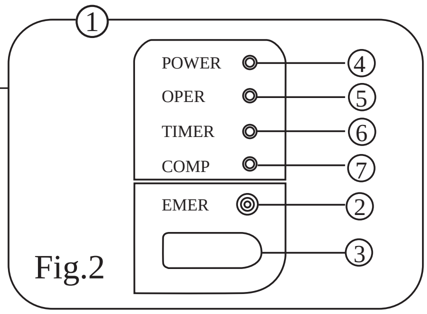


Fig.2

Fig.1 Indoor Unit

① Operating Control Panel (Fig.2)
② Emergency switch
③ Remote Control Signal Receiver
④ Power Indicator Lamp (Red)
⑤ OPERATION Indicator Lamp (Green)
⑥ TIMER Indicator Lamp (Yellow)
⑦ Compressor Run Lamp (Green)
⑧ Intake Grill
⑨ Air Filter
⑩ UP/DOWN Air Direction Flaps
⑪ RIGHT/LEFT Air Direction Louvers
(behind UP/DOWN Air Direction Flaps)

Note : For the wired control type unit, the unit state should be checked by the the wired controller, instead of the remote receiver; and if you set the TIMER function, the TIMER LED on the remote receiver will not be on.

■ Cleaning and Care

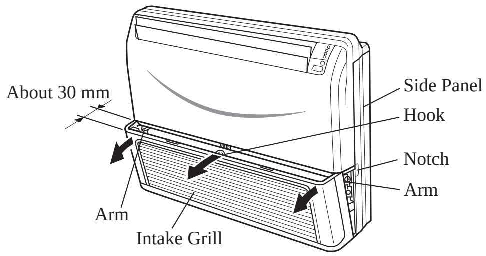
⚠ CAUTION!

- Before cleaning the air conditioner ,be sure to turn it off and disconnect the Power Supply Cord.
- Be sure the Intake Grill is installed securely.
- When removing and replacing the air filters, be sure not to touch the heat exchanger, as personal injury may result.

Cleaning the Air Filter

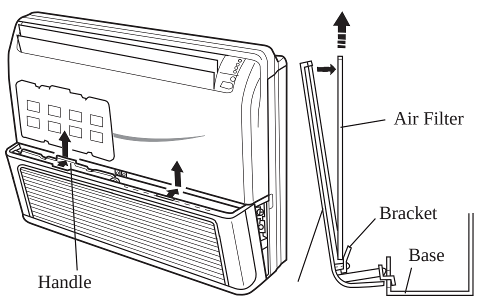
Open the Intake Grill

1. Pull out both sides and the center of the Intake Grill.



2. Pull the Air Filters upward to remove them.

Push the Air Filter handles away from the Intake Grille in direction as illustrated, then pull out Air Filters.

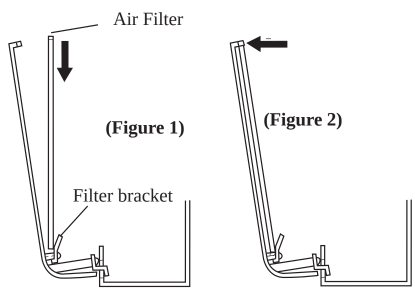


3. Clean the Air Filters.

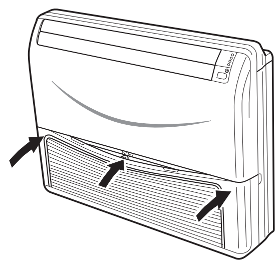
Remove the dust from the Air Filters by vacuum cleaner or washing them. After washing, allow the Air Filters to dry thoroughly in an area protected from sunlight.

4. Re-attach the Air Filters to the Intake Grill.

① The Filters fit onto the inside of the intake Grill. (figure 1)
② The bottom edges of the Air Filters should fit into the filter brackets. (figure 1)
③ The Air Filters should be pushed down so that their top edges fit under the projections at the top of the Intake Grill. (figure 2)



5. Push in both sides and the center of the Intake Grill.



- Dust can be cleaned from the Air Filter either with a vacuum cleaner, or by washing the filter in a solution of mild detergent and warm water. If you wash the filter, be sure to allow it to dry thoroughly in a shady place before reinstalling.
- If dirt is allowed to accumulate on the Air Filter, air flow will be reduced, lowering operating efficiency and increasing noise.
- During periods of normal use, the Air Filters should be cleaned every two weeks.

Operation Tips

Operation and Performance

*Heating Performance

- This air conditioner operates on the heat-pump principle, absorbing heat from outdoor air and transferring that heat indoors. As a result, the operating performance is reduced as outdoor air temperature drops. If you feel that insufficient heating perfomance is being produced, we recommend you use this air conditioner in conjunction with another kind of heating appliance.
- Heat-pump air conditioners heat your entire room by recirculating air throughout the room, with the result that some time may be required after first starting the air conditioner until the room is heated.

Instructions relating to heating (*) are applicable only to "HEAT & COOL TYPE".

*Microcomputer-controlled Automatic Defrosting

- When using the Heating mode under conditions of low outdoor air temperature high humidity, frost may form on the outdoor unit, resulting in reduced operating performance.
- In order to prevent this kind of reduced performance, this unit is equipped with a Microcomputer-controlled Automatic Defrosting function. If frost forms, the air conditioner will temporarily stop, and the defrosting circuit will operate briefly (for about 7 to 15 minutes).

STANDARD PARTS

The following installation parts are furnished. Use them as required.

Optional parts

Mark	Parts name
Ⓐ	Adhesive tape
Ⓑ	Saddle (L.S) with screws
Ⓒ	Drain hose
Ⓓ	Heat insulation material
Ⓔ	Piping hole cover
Ⓕ	Putty
Ⓖ	Plastic clamp

Installation

Please ask the dealer or specialist to install, never try by the users themselves. After the installation please be sure of the following conditions.

WARNING !

- **Please call dealer to install the air-conditioner.**
  Incorrect installation may cause water leaking, shock and fire hazard.

CAUTION !

- **Air-conditioner can't be installed in the environment with inflammable gases because the inflammable gases near to air-conditioner may cause fire hazard.**

- **Installed electrical-leaking circuit breaker.**
  It easily cause electrical shock without circuit breaker.

[Location]

- Air-conditioner should be located in well-vented and easily-accessible place.
- Air-conditioner should not be located in the following places:
  (a) Places with machine oils or other oil vapours.
  (b) Seaside with high salt content in the air.
  (c) Near to hot spring with high content of sulfide gases.
  (d) Area with frequent fluctuation of voltage e.g. factory, etc.
  (e) In vehicles or ships.
  (f) Kitchen with heavy oil vapour or humidity.
  (g) Near to the machine emitting electric-magnetic waves.
  (h) Places with acid, alkali vapuor.
- TV, radio, acoustic appliances etc are at least 1 m far away to the indoor unit, outdoor unit, power supply wire, connecting wire, pipes, otherwise images may be disturbed or noises be created.
- As required, take measures against heavy snow.

- **Connect earthing wire.**
  Earthing wire should not be connected to the gas pipe, water pipe, lightning rod or phone line, incorrect earthing may cause shock.



Earthing

- **Use discharge pipe correctly to ensure efficient discharge.**
  Incorrect pipe use may cause water leaking.

[Wiring]

- Air-conditioner should be equipped with special power supply wire.

[Operating noise]

- Choose the following locations:
  (a) Capable of supporting air-conditioner weight, don't increase operating noise and vibration.
  (b) Hot vapour from outdoor unit outlet and operating noise don't disturb neighbour.
- No obstacles around the outdoor unit outlet.

Installation Procedures

SELECTING THE MOUNTING POSITION

⚠ WARNING

Install at a place that can withstand the weight of the indoor and outdoor units and install positively so that the units will not topple or fall.

⚠ CAUTION

(1)Do not install where there is the danger of combustible gas leakage.

(2) Do not install near heat sources.

(3) If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.

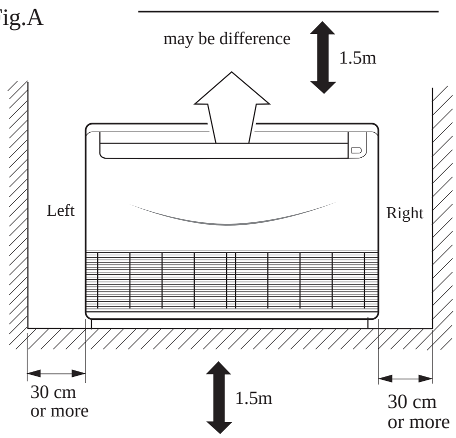
Decide the mounting position with the customer as follows:

1. INDOOR UNIT

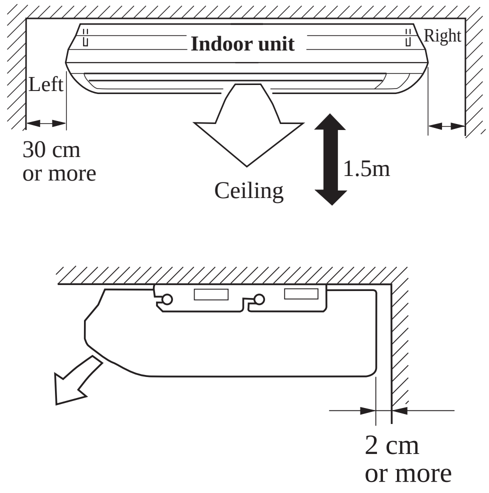
(1) Install the indoor unit level on a strong wall, floor, ceiling which is not subject to vibration.
(2) The inlet and outlet ports should not be obstructed: the air should be able to blow all over the room.
(3) Install the unit near an electric outlet or special branch circuit.
(4) Do not install the unit where it will be exposed to direct sunlight.
(5) Install the unit where connection to the outdoor unit is easy.
(6) Install the unit where the drain pipe can be easily installed.
(7) Take servicing, etc. into consideration and leave the spaces shown in Fig.A. Also install the unit where the filter can be removed.

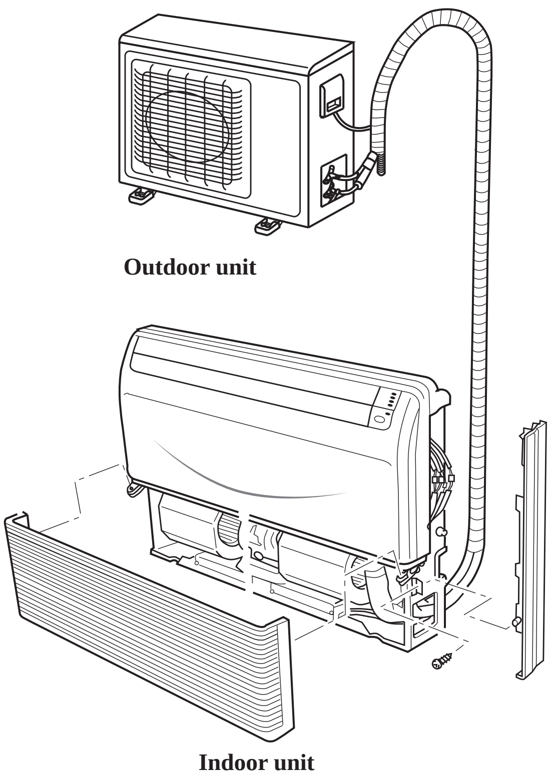
- **Floor console**

Fig.A



- **Under ceiling**





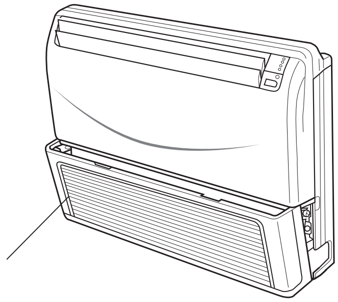
Installation Procedures

PREPARING INDOOR UNIT INSTALLATION

1. REMOVE THE INTAKE GRILL

Open the intake grill and remove the three or four or six screws.(Fig. 1)

Fig. 1



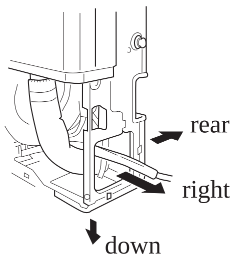
Remark:
The main unit can be wired before the indoor unit is installed. Select the most appropriate installation order.

A. FLOOR CONSOLE TYPE

1. DRILLING FOR PIPING

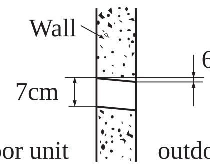
Select piping and drain directions.(Fig.2)
The piping and drain can be made in three directions as shown below.

(Fig.2)



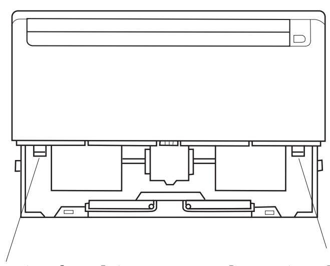
When the directions are selected, drill a 7 cm dia. hole on the wall so that the hole is tilted downward toward the outdoor for smooth water flow. When the pipe is led out from the rear, make a hole in Fig.4, at the position shown.

(Fig.4)



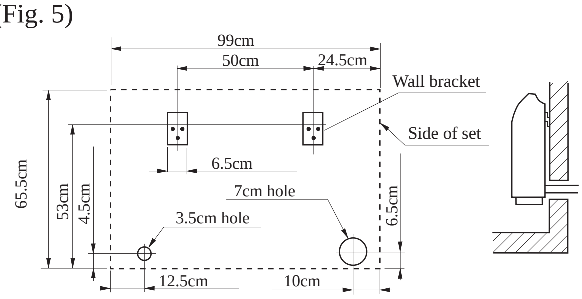
The drain hose can be connected to either the left or right side.(Fig.3)

(Fig. 3)



When installing set to wall, install the accessory wall bracket at the position shown in Fig.5,and mount the set to it.

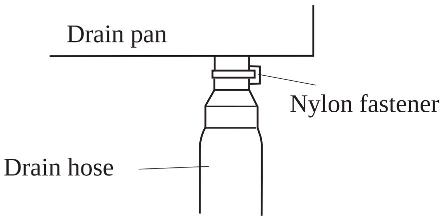
(Fig. 5)



2. INSTALLING DRAIN HOSE

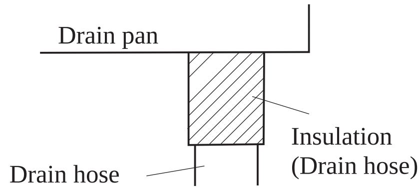
Select whether the drain hose will be connected to the left or right side.(Fig.3) Insert the drain hose into the drain pan, then secure the drain hose with a nylon fastener. (Fig.6)

(Fig. 6)



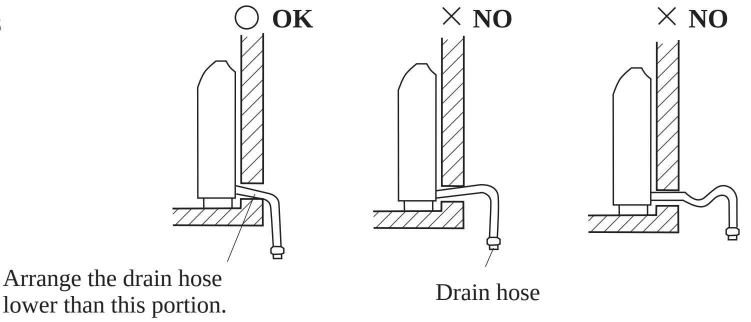
Wrap the insulation (drain hose) around the drain hose connection. (Fig.7)

(Fig. 7)



Be sure to arrange the drain hose correctly so that it is leveled lower than the drain hose connecting port of the indoor unit.

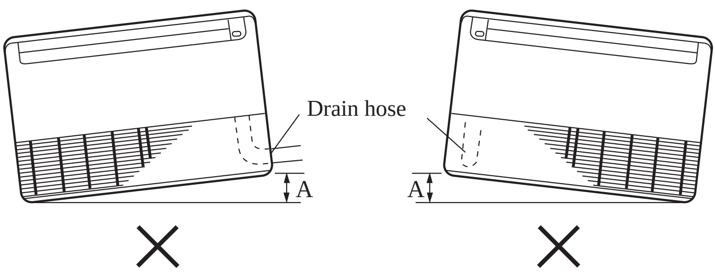
Fig. 8



⚠ CAUTION

Do not install the unit drain hose side is too high. Height A should be less than 5 mm.(Fig.9)

Fig. 9



B. UNDER CEILING TYPE

Using the installation template, drill holes for piping and anchor bolts(for holes).(Fig.10)

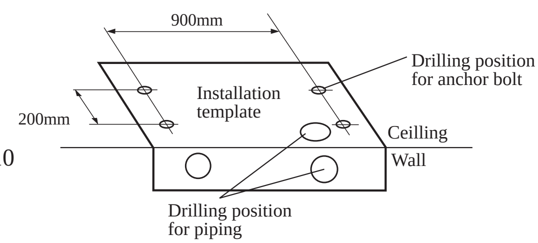


Fig. 10

Installation Procedures

1. DRILLING FOR PIPING

Select piping and drain directions. (Fig.11)

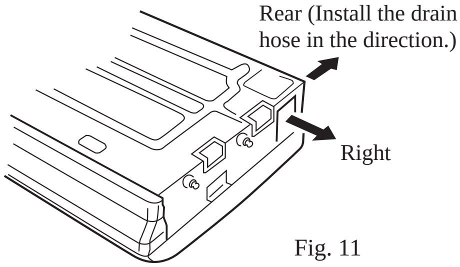


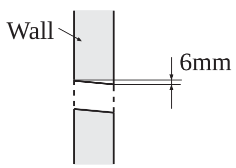
Fig. 11

⚠ CAUTION

Install the drain hose at the rear; it should not be installed on the top or right side.

When the directions are selected, drill 80mm and 50mm or 150mm dia. hole on the wall so that the hole is tilted downward toward the outdoor for smooth water flow.

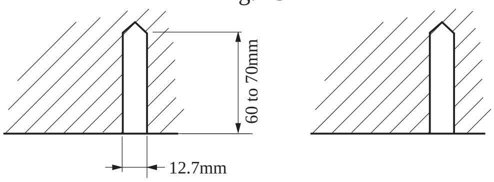
Fig. 12



2. DRILLING HOLES FOR ANCHOR BOLTS AND INSTALLING THE ANCHOR BOLTS

With a concrete drill, drill four 12.7 mm dia. Holes. (Fig.13)

Fig. 13



Insert the anchor bolts into the drilled holes, and drive the pins completely into the anchor bolts with a hammer. (Fig. 14)

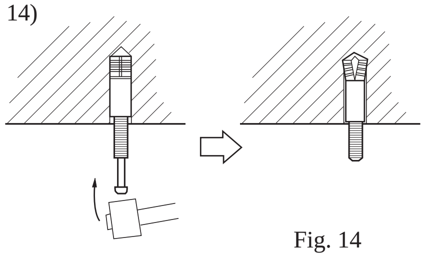
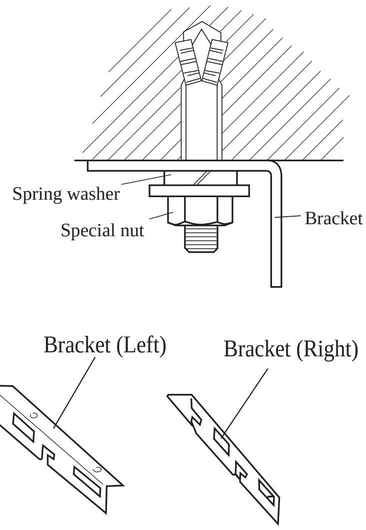


Fig. 14

3. INSTALLING BRACKETS

Install the brackets with nuts, washers and spring washers.(Fig. 15)

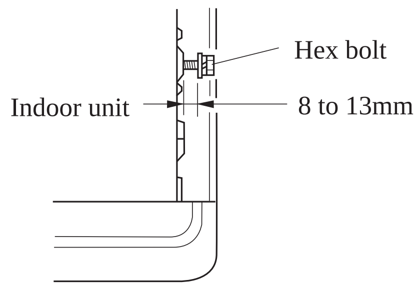
Fig. 15



4. INSTALLING INDOOR UNIT

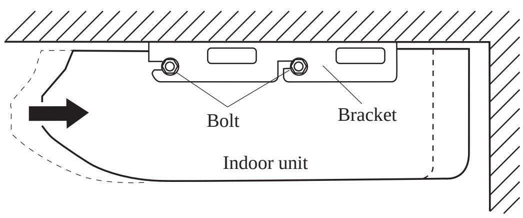
Reset the hex bolts as shown in Fig.16.

Fig. 16



Apply the indoor unit to the brackets.(Fig.17)

Fig. 17

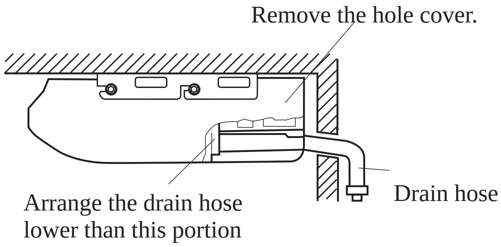


Now, securely tighten the hex bolts in both sides.

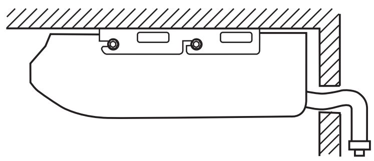
5. INSTALL THE DRAIN HOSE

Select whether the drain hose will be connected to the left or right side.(Fig.3)
Insert the drain hose into the drain pan, then secure the drain hose with a nylon fastener.(Fig.6)
Wrap the insulation (drain hose)around the drain hose connection.(Fig.7)
Be sure to arrange the drain hose correctly so that it is leveled lower than the drain hose connecting port of the indoor unit.(Fig.18)

Fig. 18

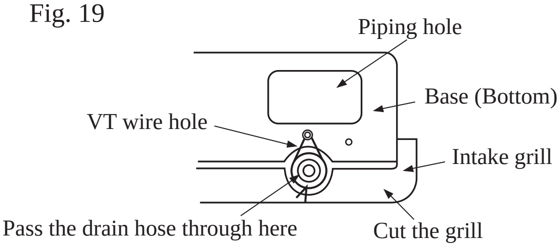


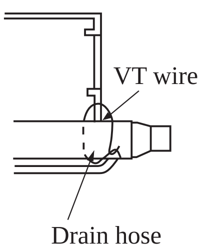
○ OK



× NO

Fig. 19





OUTDOOR UNIT INSTALLATION

CONNECTING THE PIPING

1. FLARE PROCESSING

(1) Cut the connection pipe with pipe cutters so that the pipe is not deformed.

(2) Holding the pipe downward so that cuttings cannot enter the pipe, remove the burrs.

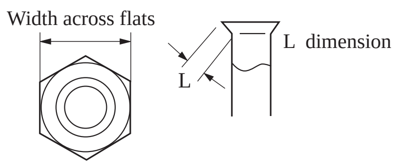
(3) Remove the flare nut from the indoor unit pipe and outdoor unit and assemble as shown in (Table1) and insert the flare nut onto the pipe, and flare with a flaring tool.

(4) Check if the flared part "L" (Fig.20)is spread uniformly and that there are no cracks.

Table 1

Pipe	Flare nut
Small pipe	Small (width across flats 22mm)
Large pipe	Large (width across flats 24mm)

Fig. 20

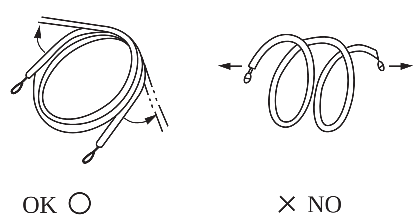


		Diameter of pipe	Dimension A (mm)
For series 142, 182	Liquid pipe	∅ 6.35mm (1/4î)	1.0~1.2
	Gas pipe	∅ 12.7mm (1/2î)	
For series 242	Liquid pipe	∅ 9.52mm (3/8î)	1.4~2.2
	Gas pipe	∅ 15.88mm (5/8î)	

2. BENDING PIPES

The pipes are shaped by your hands. Be careful not to collapse them.

Fig. 21



Extend the pipe by unwinding it

Installation Procedures

HOW TO CONNECT WIRING TO THE TERMINALS

A. For solid core wiring (or F-cable)(Fig.24A)

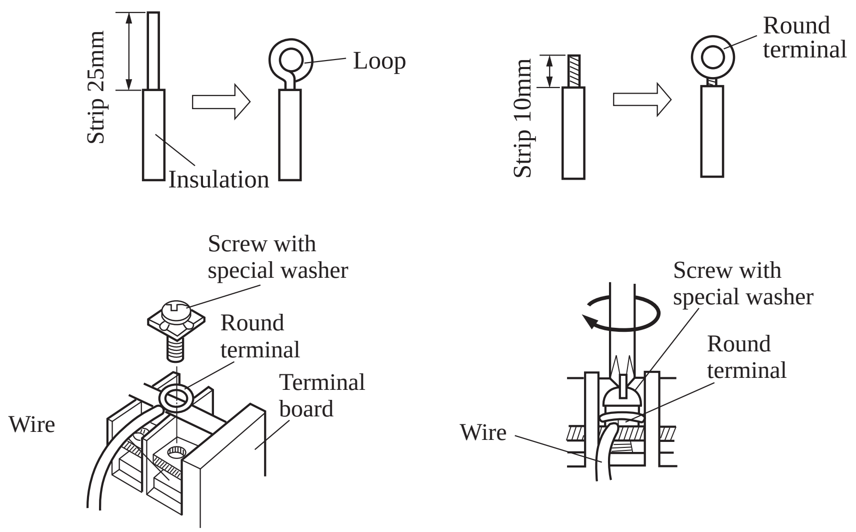
(1) Cut the wire with a wire cutter or wire-cutting pliers, then strip the insulation to about 25mm of the exposed solid wire.
(2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
(3) Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
(4) Shape the loop wire properly, place it on the terminal board and tighten securely with the terminal screw using a screw driver.

B. For strand wiring(Fig.24B)

(1) Cut the wire with a wire cutter or wire-cutting pliers, then strip the insulation to about 10mm of the exposed strand wiring.
(2) Using a screwdriver, remove the terminal screw(s)on the terminal board.
(3) Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.
(4) Position the round terminal wire, and replace and tighten the terminal screw using a screw driver.

Fig. 24

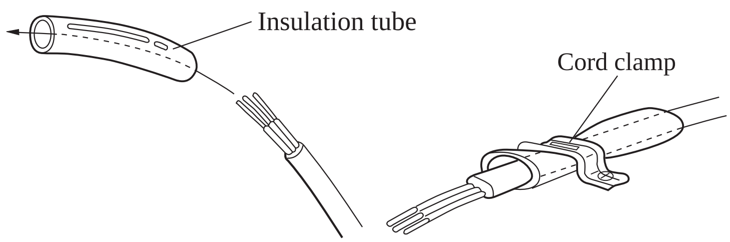
A. Solid wire **B. Strand wire**



HOW TO FIXED CONNECTION CORD AND POWER CABLE AT THE CORD CLAMP

After passing the connection cord and power cable through the insulation tube, fasten it with the cord clamp, as shown in Fig.25

Fig. 25



Use VW-1, 0.5 to 1.0 mm thick, PVC tube as the insulation tube.

Installation Procedures

ELECTRICAL REQUIREMENT

- Electric wire size and fuse capacity:

Table 5

Type	For series 142	For series 182	For series 242
Connection cord (mm^2)	0.75	0.75	0.75
Power supply cord (mm^2)	2.5	2.5	4.0
Fuse capacity(A)	30	30	40

ELECTRICAL WIRING

⚠ CAUTION

(1) Match the terminal block numbers and connection cord colors with those of the outdoor unit. Erroneous wiring may cause burning of the electric parts.

(2) Connect the connection cords firmly to the terminal block. Imperfect installation may cause a fire.

(3) Always fasten the outside covering of the connection cord with the cord clamp.(If the insulator is chafed, electric leakage may occur.)

(4) Always connect the ground wire.

1. INDOOR UNIT SIDE

(1) Remove the electric component box.

Fig. 26

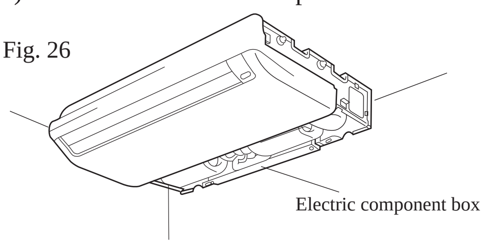
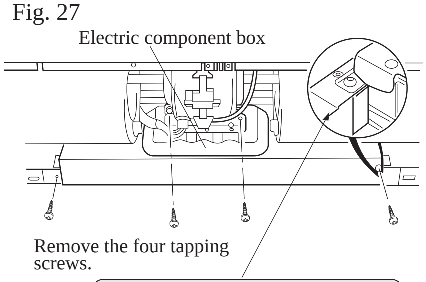


Fig. 27

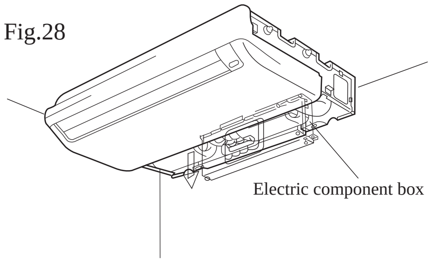


⚠ CAUTION

Do not remove the screws. If the screws are removed, the electric component box will fall.

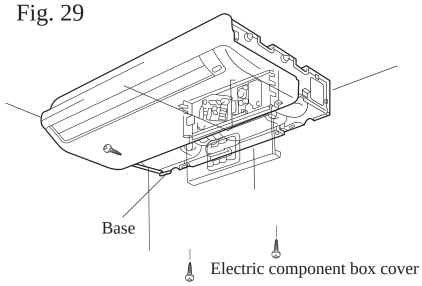
(2) Pull out the electric component box.

Fig.28



(3) Remove the electric component box cover.

Fig. 29



Remove the three tapping screws.

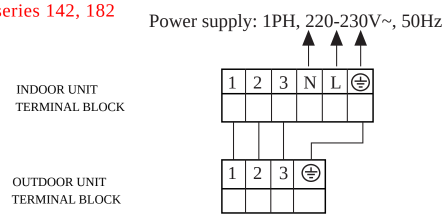
⚠ CAUTION

Be careful not to pinch the lead wires between the electric component box and base.

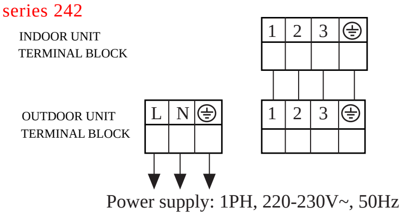
(4) Wiring

(1) Remove the cord clamp.
(2) Process the end of the connection cords to the dimensions shown in Fig.34.
(3) Connect the end of the connection cord fully into the terminal block.
(4) Fasten the connection cord with a cord clamp.
(5) Fasten the end of the connection cord with the screw.

For series 142, 182



For series 242



Installation Procedures

ELECTRICAL WIRING

⚠ WARNING

(1) Always use a special branch circuit and install a special receptacle to supply power to the room air conditioner.
(2) Use a circuit breaker and receptacle matched to the capacity of the room air conditioner.
(3) The circuit breaker is installed in the permanent wiring. Always use a circuit that can trip all the poles of the wiring and has an isolation distance of at least 3mm between the contacts of each pole.
(4) Perform wiring work in accordance with standards so that the room air conditioner can be operated safely and positively.
(5) Install a leakage circuit breaker in accordance with the related laws and regulations and electric company standards.

⚠ CAUTION

(1) The power source capacity must be the sum of the room air conditioner current and the current of other electrical appliances. When the current contracted capacity is insufficient, change the contracted capacity.
(2) When the voltage is too low and the air conditioner is difficult to start, contact the power company the voltage raised.

TEST RUNNING

1. CHECK ITEMS

(1) INDOOR UNIT

(1) Is operation of each button on the remote control unit normal?
(2) Does each lamp light normally?
(3) Do not air flow direction louvers operate normally?
(4) Is the drain normal?

(2) OUTDOOR UNIT

(1) Is there any abnormal noise and vibration during operation?
(2) Will noise, wind, or drain water from the unit disturb the neighbors?
(3) Is there any gas leakage?

CUSTOMER GUIDANCE

Explain the following to the customer in accordance with the operating manual:

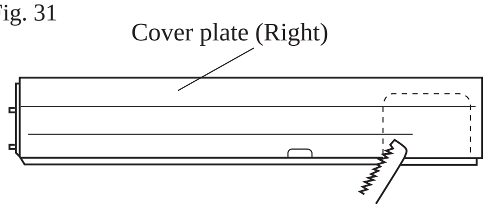
(1) Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
(2) Air filter removal and cleaning, and how to use air louvers.
(3) Give the operating and installation manuals to the customer.

MOUNT THE COVER PLATE AND THE INTAKE GRILL

1.Mount the cover plate. (Right)

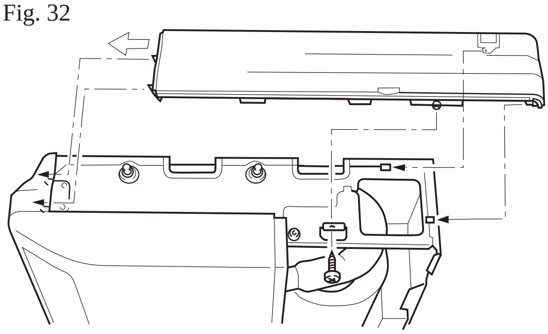
(1) Cut a pipe exit hole in the right plate. This is only when the pipe exits from the right side. (This operation is not required when the protrusion is on the top or rear.)

Fig. 31



(2) Join the cover plates (right) and mount with screws.

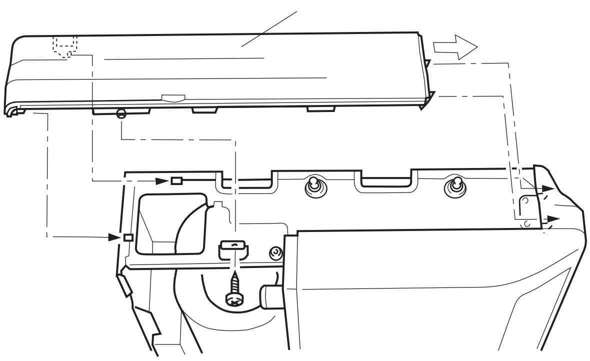
Fig. 32



2. Mount the cover plate.(Left)

(1) Join the cover plate (left) and mount with screws.

Fig. 33



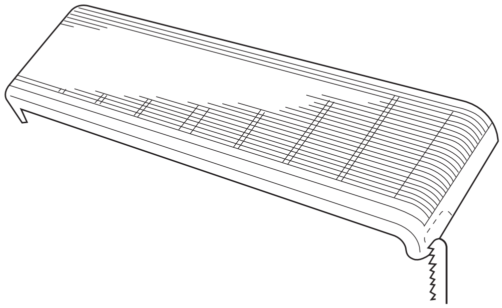
***

■ Installation Procedures

3. Mount the intake grill.

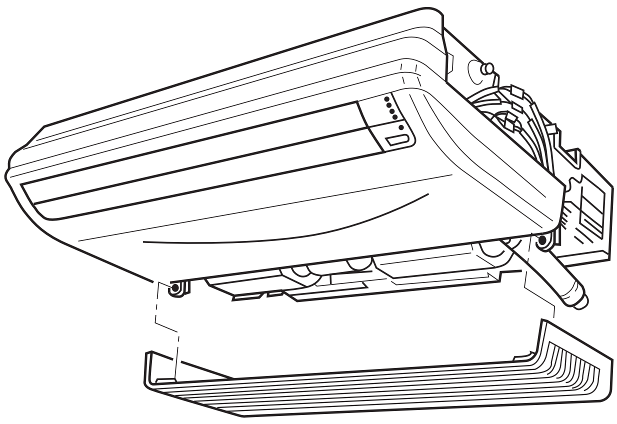
(1) Cut the right side of the intake grill. This is only when the pipe exits from the right side

Fig. 34



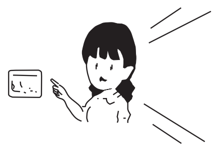
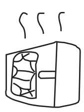
(2) Insert the hinges on the bottom of the intake grill into the holes in the base assembly. Then mount the arms to the three areas on the top of the intake grill.

Fig. 35



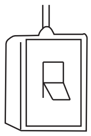
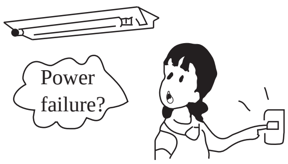
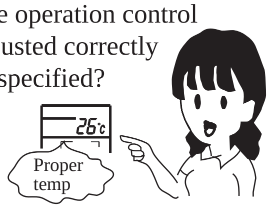
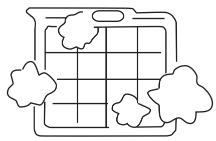
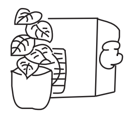
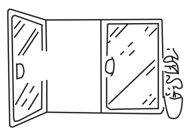
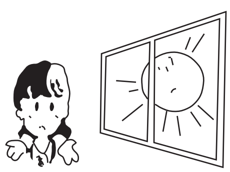
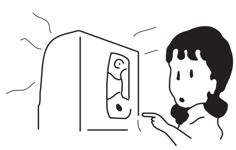
Trouble Shooting

Followings are not problems

Sound of water flowing is not a problem. 	During unit operation or at stop, a swishing or gurgling noise may be heard. This noise is generated by refrigerant flowing in the system.
Sound of cracking is heard.	During unit operation, a cracking noise may be heard. This noise is generated by the casing expanding or shrinking because of temperature changes.
Smell are generated.	This is because the system circulates smells from the interior air such as the smell of cigarettes or the painting on the furniture.
During operation, white fog or steam comes out from the indoor unit.	When unit is running at places like restaurant, etc. where dense edible oil fumes always exist, this will happen.
In cooling operation, unit switches to blowing operation.	To prevent frost from accumulating on indoor heat exchanger, unit will switch to blowing operation for a while then resume cooling operation.
Unit will not restart after stop. Won't start? 	Though ON/OFF button is set to ON, unit won't resume cooling, dry or heating operation in 3 min after it is stopped, this is because of 3-min-delay protection circuit.  Please wait 3 minutes
No outlet air or fan speed can't be changed in dry mode.	Unit will reduce fan speed repeatedly and automatically if room temp. is too low in dry operation.
In heating operation, water or steam are blown out of outdoor unit. 	This occurs when frost accumulated on the outdoor unit is removed. (during defrosting operation)
In heating operation, indoor fan won't stop even if unit is stopped.	After unit stop, indoor fan will go on running until indoor unit cools down.

Trouble Shooting

Before ask for services, please first check your unit against the following.

Air conditioner won't start.		
Is power supply switch turned on?  Power supply switch is not set at ON.	Is city power supply normal? 	Is leakage current breaker activated? This is very dangerous, please disconnect power supply immediately and contact your dealer.
Poor cooling or heating		
Are operation control adjusted correctly as specified? 	Is air filter too dirty? 	Are there any obstacles in inlet or outlet grill? 
Are horizontal louvers at up position (in heating mode)?	Any doors or windows left open? 	
Poor cooling		
Is there any direct sunlight in the room? 	If there are unexpected heat sources in the room? 	Too many people in the room? 

Cold air blows out (in heating mode)
Is air conditioner in standby condition in heating mode?

If your unit still can't work properly after above mentioned checks, or following problems occur, please stop it immediately and contact your dealer.

- Fuses or circuit breakers often blow out.
- Water comes out in cooling/dry operation.
- Operation is abnormal or sound is heard.

Trouble Shooting

Error display (For *.ERA)

For remote type, flash times	Failure description	Reason	Remarks
1	Indoor ambient temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
2	Indoor coil temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
3	Outdoor ambient temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
4	Outdoor coil temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
5	Over-current protection	CT check abnormal 3 times in 30m	※
6	High pressure abnormal	High pressure switch acts 3 times in 30m	※
7	Power supply abnormal	Fault phase, short of phase, out of balance greatly	※
8	Communication between wired controller and indoor abnormal	Communication abnormal for more than 4m continuously	○
9	Communication between indoor and outdoor abnormal	Communication abnormal for more than 4m continuously	○
10	Drainage system abnormal	Float switch broken down for more than 25m continuously	○
11	Outside alarm signal input	Outside signal broken down for more than 10s	○
12	Gas pipe temp. sensor abnormal	Sensor broken down or short circuit for more than 2m continuously	○
13	Temperature protection malfunction	Solenoid valve act incorrectly 3 times continuously	※
14	Discharging temp. sensor abnormal	Sensor broken down or short circuit for more than 2m continuously	○
15	EEPROM abnormal	EEPROM data missing	○
16	Pressure abnormal(low pressure)	Low pressure switch acts in normal running	※
17	Compressor overheat	The discharging temperature is higher than 120degree	○ Resumable if lower than 100 degree
18	Abnormal mode	Indoor operation mode is different with the running indoor unit.	○
19	Outdoor coil B(suction temp sensor-for MRV II)	Sensor broken down or short circuit for more than 2m continuously	○
20	Outdoor discharging B(oil temp sensor-for MRV II)	Sensor broken down or short circuit for more than 2m continuously	○
21	SPDU module temperature protection	SPUD module temperature is too high	○

○ shows resumable fault, * shows it is not resumable fault.

Trouble Shooting

Error display (For *.EAA)

For remote type, flash times	Failure description	Reason	Remarks
1	Indoor ambient temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
2	Indoor coil temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
3	Outdoor ambient temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
4	Outdoor coil temp. sensor failure	Sensor broken down or short circuit for more than 2m continuously	○
5	Over-current protection	CT check abnormal 3 times in 30m	※
6	High pressure abnormal	High pressure switch acts 3 times in 30m	※
7	Power supply abnormal	Fault phase, short of phase, out of balance greatly	※
8	Communication between wired controller and indoor abnormal	Communication abnormal for more than 4m continuously	○
9	Communication between indoor and outdoor abnormal	Communication abnormal for more than 4m continuously	○
10	Drainage system abnormal	Float switch broken down for more than 25m continuously	○
11	Outside alarm signal input	Outside signal broken down for more than 10s	○
12	Gas pipe temp. sensor abnormal	Sensor broken down or short circuit for more than 2m continuously	○
13	Temperature protection malfunction	Solenoid valve act incorrectly 3 times continuously	※
14	Discharging temp. sensor abnormal	Sensor broken down or short circuit for more than 2m continuously	○
15	EEPROM abnormal	EEPROM data missing	○
16	Pressure abnormal(low pressure)	Low pressure switch acts in normal running	※
17	Compressor overheat	The discharging temperature is higher than 120degree	○ Resumable if lower than 100 degree
18	Abnormal mode	Indoor operation mode is different with the running indoor unit.	○
19	Outdoor coil B(suction temp sensor-for MRV II)	Sensor broken down or short circuit for more than 2m continuously	○
20	Outdoor discharging B(oil temp sensor-for MRV II)	Sensor broken down or short circuit for more than 2m continuously	○

○shows resumable fault, * shows it is not resumable fault.

HAIER GROUP
Qingdao Haier Air Conditioner Electric Co., Ltd.
Address: Haier Garden, Qianwangang Road, Economic Development Zone,
Qingdao, Shandong 266500, P.R.China
Web Site: http://www.haier.com